

# FACT SHEET

Missouri Department of Natural Resources



## Former Amoco Refinery Sugar Creek, Missouri

December 1999

### *RCRA versus CERCLA*

The U. S. Environmental Protection Agency (EPA) Region 7 and the Missouri Department of Natural Resources (MDNR) have prepared this fact sheet to provide information to the Sugar Creek community about the Resource Conservation Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) programs.

#### **What is RCRA ?**

The Resource Conservation and Recovery Act (RCRA), an amendment to the Solid Waste Disposal Act, was enacted in 1976 to address the issue - - how to safely dispose of the huge volumes of hazardous and nonhazardous municipal and industrial waste generated nationwide and to ensure prevention of future releases. The 1984 Hazardous and Solid Waste Amendments (HSWA) significantly expanded the scope and requirements of RCRA. In addition, HSWA expanded EPA's authorities to address releases of hazardous waste or hazardous constituents through "corrective actions" or cleanup of wastes released from RCRA hazardous waste facilities.

The HSWA Amendments authorize EPA to require corrective action (usually under an enforcement order or as part of a permit action) whenever there is, or has been, a release of hazardous waste or constituents at a treatment, storage, or disposal facility. Further, RCRA allows EPA to require corrective action beyond the facility boundary. EPA interprets the term *corrective action* to cover the full range of possible actions, from investigations,

studies, and interim measures to full cleanups. The goals of RCRA are: to protect human health and the environment from the hazards posed by waste disposal; to conserve energy and natural resources through waste recycling and recovery; to reduce or eliminate the amount of waste generated, including hazardous waste; and to ensure that wastes are managed in a manner that is protective of human health and the environment. To achieve the goals, three interrelated programs exist under RCRA:

- *Subtitle D* – The Solid Waste Program promotes and encourages the environmentally sound management of solid waste. It includes minimum federal technical standards and guidelines for state solid waste plans.
- *Subtitle C* – The Hazardous Waste Program establishes a management system that regulates hazardous waste from the time it is generated until its ultimate disposal including cleanup of releases.
- *Subtitle I* – The Underground Storage Tank Program regulates underground storage tanks that contain petroleum or hazardous substances.

## What is CERCLA?

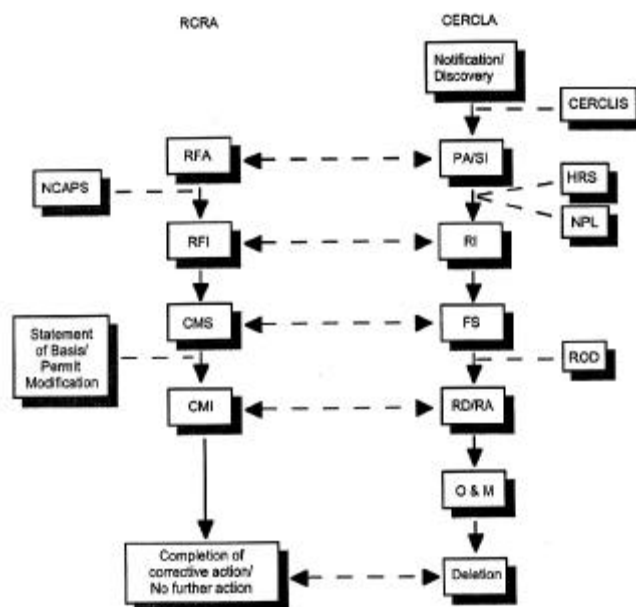
The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund, was established in response to the discovery, in the late 1970s, of a large number of abandoned, leaking, hazardous waste dumps that were threatening human health and contaminating the environment. CERCLA, as originally enacted in 1980, authorized a program by the federal government to perform the following primary tasks:

- Identify those sites where releases of hazardous substances had already occurred or might occur and posed a serious threat to human health, welfare, or the environment
- Take appropriate action to remedy those releases
- Ensure those parties responsible for the release to pay for the cleanup actions.

## RCRA Corrective Actions versus CERCLA Response

RCRA corrective action and CERCLA cleanup programs use different labels but follow parallel procedures in responding to releases (see figure). In both, the first step after discovery of a release is an examination of available data to determine if an emergency action is warranted. Both programs allow for short-term measures to reduce the immediate adverse effects of a release. Once any emergency has been addressed, both programs conduct investigations and formal studies of long-term cleanup options. When these analyses are completed, both provide for formal selection of a remedy. Generally, cleanups under RCRA corrective action or CERCLA will substantively satisfy the requirements of both programs.

RCRA CORRECTIVE ACTION VS. CERCLA REMEDIAL PROCESS



See last page for glossary of terms

## How RCRA and CERCLA Differ?

RCRA and CERCLA have a common goal to protect human health and the environment from the dangers of hazardous waste. However, these address the hazardous waste problem from two fundamentally different approaches:

- RCRA has a largely *regulatory* approach. RCRA regulates the management of wastes from the moment of generation until final disposal and provides corrective action authority for investigating and cleaning up contamination at or from RCRA Subtitle C facilities.
- CERCLA has a *response* approach. CERCLA authorizes cleanup actions whenever there has been a breakdown in the waste management system. Also, CERCLA addresses the problems of hazardous waste encountered at inactive or abandoned sites or those resulting from spills that require emergency response.

## What are CERCLA Hazardous Substances?

CERCLA provides broad authorities allowing EPA to respond or to compel responsible parties to respond to releases or threatened releases of hazardous substances. The term *hazardous substance* is defined in CERCLA to include various substances listed as chemicals of concern under other environmental statutes. However, CERCLA's definition of hazardous substance excludes "petroleum, including crude oil or any fraction thereof," unless specifically listed or designated under CERCLA. EPA commonly refers to this as the *petroleum exclusion*. EPA interprets this exclusion to include both hazardous substances that naturally occur in petroleum, such as benzene and xylene, and hazardous substances that are normally mixed with or added to crude oil or crude oil fractions during the refining process. However, hazardous substances that are added to petroleum or that increase in concentration as a result of contamination of the petroleum during use are not considered part of the petroleum and are regulated under CERCLA.

### **How does the Petroleum Exclusion Relate to the Former Amoco Refinery?**

Since the hydrocarbons in the off-facility area appear to fall within CERCLA's petroleum exclusion, they could not be addressed under CERCLA's response authority. EPA has used its CERCLA response authority to investigate potential releases of mercury on the former refinery and the recent report of volatile organic vapor odors in a home. MDNR used its Clean Water Act authorities to investigate releases in the West Bluffs area last spring. EPA and MDNR will continue to use the legal authorities that provide the best relief

under the specific circumstances encountered. However, in light of the petroleum exclusion, in most instances RCRA's response authorities, not CERCLA's, appear to provide the best means to address releases at the former refinery.

### **Additional Information Sources**

If you have questions about this fact sheet or would like additional information, please contact:  
Shawntell Crossgrow  
Community Involvement Coordinator  
EPA Region 7  
901 N. 5<sup>th</sup> Street  
Kansas City, KS 66101  
(913) 551-7003 or

Toll-Free: 1-800-223-0425

**Coming Soon!**  
**EPA Region 7's new**  
**Former Amoco**  
**Refinery**  
**Web Site**

Brian McCurren  
Missouri  
Department of  
Natural Resources  
Hazardous Waste  
Program

P. O. Box 176  
Jefferson City, MO 65102  
(573) 751-3553 or  
Toll-Free: 1-800-361-4827

A copy of the 1995 RCRA Facility Investigation Report and other technical reports concerning the Former Amoco Sugar Creek Refinery are available at:

Mid-Continent Public Library  
North Independence Branch  
317 West 24 Hwy  
Independence, MO 64050  
(816) 252-0950

### *Glossary*

**RCRA Facility Assessment (RFA):** RFAs compile existing information on environmental conditions at a given facility, including information on actual or potential releases. This information is compiled and reviewed to eliminate areas of a facility from further consideration where there is no evidence of a release or likelihood of a release that could pose a threat to human health or the environment.

**National Corrective Action Prioritization System (NCAPS):** NCAPS, a resource management priority-setting tool, considers the setting of a facility, actual and potential releases of hazardous constituents from the facility, and the toxicity of constituents of concern to group facilities into high, medium, or low priority groups.

**RCRA Facility Investigations (RFI):** RFIs ascertain the nature and extent of contamination of releases identified during the RFA.

**Corrective Measures Study (CMS):** CMS identifies and evaluates different alternatives to remediate the site under RCRA corrective action.

**Statement of Basis:** This document, designed to facilitate public participation, generally summarizes the proposed remedial action plan and the findings supporting the selected remedy and contains an explanation for the selected cleanup levels under a RCRA corrective action.

**Corrective Measures Implementation (CMI):** CMI includes detailed design, construction, operation, maintenance, and monitoring of the chosen remedy under a RCRA corrective action.

**Preliminary Assessment/ Site Inspection (PA/SI):** This assessment determines if the site poses a potential hazard and whether further action is necessary. If the PA reveals a contamination problem exists but does not pose immediate threat, a SI will be performed. A SI, an extensive study, involves a site visit and sample collection to define and further characterize the site's problems under CERCLA.

**Hazard Ranking System (HRS):** The HRS is a numerically-based, scoring system that uses information ranging from the PA and SI to assign each site a score ranging from 0 to 100 under CERCLA.

**National Priorities List (NPL):** A listing of sites with HRS scores of 28.50 or higher. These sites represent the priority hazardous substance sites nationwide and are eligible for long-term remedial actions under CERCLA.

**Remedial Investigation (RI):** Site information is collected and analyzed to determine the nature and extent of contamination at the site under CERCLA.

**Feasibility Study (FS):** Specific alternative remedies are considered and evaluated by EPA and the public under CERCLA.

**Record of Decision (ROD):** Under CERCLA, a final remedy is selected and documented in a ROD once comments have been received and evaluated.

**Remedial Design and Remedial Action (RD/RA):** During this time, the recommended CERCLA cleanup is designed then undertaken. The time required to complete the remedy varies according to the complexity of the remedy.

**Operation and Maintenance (O & M):** These continuing site activities are conducted to maintain the effectiveness of the remedy and to ensure that no new threat to human health or the environment arises, once the remedial actions are completed.

**Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS):** CERCLIS serves as a historical data base for EPA to keep track of EPA's work at each Superfund site.